IN THE CLAIMS:

Set forth below in ascending order, with status identifiers, is a complete listing of all claims currently under examination. Changes to any amended claims are indicated by strikethrough and underlining. This listing also reflects any cancellation and/or addition of claims.

Claims 1-47 (cancelled)

Claim 48 (new)

An indirect calorimeter, comprising:

a flow tube configured to pass inhaled gases and exhaled gases of a subject;

a flow meter coupled to said flow tube, said flow meter being configured to generate an output associated with a volume of said inhaled gases and a volume of said exhaled gases;

an oxygen sensor coupled to said flow tube, said oxygen sensor being configured to generate an output associated with a concentration of oxygen in said exhaled gases; and

a computation unit coupled to said flow meter and said oxygen sensor, said computation unit being configured to process said output of said flow meter and said output of said oxygen sensor to determine an amount of oxygen consumed by said subject.

Claim 49 (new)

The indirect calorimeter of claim 48, wherein said flow meter is an ultrasonic flow meter.

Claim 50 (new)

The indirect calorimeter of claim 48, wherein said oxygen sensor is a fluorescence quench oxygen sensor.

Claim 51 (new)

The indirect calorimeter of claim 48, wherein said output of said oxygen sensor is further associated with a concentration of oxygen in said inhaled gases.

Claim 52 (new)

The indirect calorimeter of claim 48, wherein said computation unit is configured to process said output of said flow meter to determine said volume of said inhaled gases and said volume of said exhaled gases, and said computation unit is configured to process said output of said oxygen sensor to determine said concentration of oxygen in said exhaled gases.

Claim 53 (new)

The indirect calorimeter of claim 52, wherein said computation unit is configured to determine said amount of oxygen consumed based on said volume of said inhaled gases, said volume of said exhaled gases, said concentration of oxygen in said exhaled gases, and a concentration of oxygen in said inhaled gases.

Claim 54 (new)

The indirect calorimeter of claim 52, wherein said computation unit is configured to determine an amount of carbon dioxide produced by said subject based on said volume of said inhaled gases, said volume of said exhaled gases, said concentration of oxygen in said exhaled gases, and a concentration of oxygen in said inhaled gases.

Claim 55 (new)

The indirect calorimeter of claim 48, further comprising:

a respiratory connector coupled to said flow tube, said respiratory connector being configured to be supported in contact with said subject so as to pass said inhaled gases and said exhaled gases.

Claim 56 (new)

The indirect calorimeter of claim 55, wherein said respiratory connector is a mask having an edge configured to form a seal with a portion of said subject's face.

Claim 57 (new)

The indirect calorimeter of claim 48, further comprising a display unit coupled to said computation unit, said display unit being configured to provide indicia of said amount of oxygen consumed.

Claim 58 (new)

An indirect calorimeter, comprising:

a flow tube configured to pass respiratory gases;

a flow meter coupled to said flow tube, said flow meter being configured to generate a first signal associated with said respiratory gases passing through said flow tube;

an oxygen sensor coupled to said flow tube, said oxygen sensor being configured to generate a second signal associated with said respiratory gases passing through said flow tube; and

a computation unit coupled to said flow meter and said oxygen sensor, said computation unit being configured to process said first signal and said second signal to determine a volume of said respiratory gases passing through said flow tube and a concentration of oxygen in said respiratory gases passing through said flow tube, said computation unit being configured to determine a respiratory parameter based on said volume of said respiratory gases passing through said flow tube and said concentration of oxygen in said respiratory gases passing through said flow tube.

Claim 59 (new)

The indirect calorimeter of claim 58, wherein said flow meter is an ultrasonic flow meter.

Claim 60 (new)

The indirect calorimeter of claim 58, wherein said oxygen sensor is a fluorescence quench oxygen sensor.

Claim 61 (new)

The indirect calorimeter of claim 58, wherein said computation unit is configured to determine oxygen consumption based on said volume of said respiratory gases passing through

said flow tube and said concentration of oxygen in said respiratory gases passing through said flow tube.

Claim 62 (new)

The indirect calorimeter of claim 58, wherein said computation unit is configured to determine carbon dioxide production based on said volume of said respiratory gases passing through said flow tube and said concentration of oxygen in said respiratory gases passing through said flow tube.

Claim 63 (new)

The indirect calorimeter of claim 58, wherein said computation unit is configured to determine a respiratory quotient based on said volume of said respiratory gases passing through said flow tube and said concentration of oxygen in said respiratory gases passing through said flow tube.

Claim 64 (new)

An indirect calorimeter, comprising:

a first sensor configured to generate an output associated with inhaled gases and exhaled gases of a subject;

a second sensor configured to generate an output associated with said exhaled gases; and

a computation unit coupled to said first sensor and said second sensor, said computation unit being configured to process said output of said first sensor to determine a volume of said inhaled gases and a volume of said exhaled gases, said computation unit being configured to process said output of said second sensor to determine a concentration of oxygen in said exhaled gases, said computation unit being configured to determine an amount of carbon dioxide produced by said subject based on said volume of said inhaled gases, said volume of said exhaled gases, and said concentration of oxygen in said exhaled gases.

Claim 65 (new)

The indirect calorimeter of claim 64, wherein said first sensor is a flow meter.

Claim 66 (new)

The indirect calorimeter of claim 65, wherein said flow meter includes a plurality of ultrasonic transducers.

Claim 67 (new)

The indirect calorimeter of claim 64, wherein said second sensor is an oxygen sensor.

Claim 68 (new)

The indirect calorimeter of claim 67, wherein said oxygen sensor is a fluorescence quench oxygen sensor.

Claim 69 (new)

The indirect calorimeter of claim 64, wherein said computation unit is configured to determine an amount of oxygen consumed by said subject based on said volume of said inhaled gases, said volume of said exhaled gases, and said concentration of oxygen in said exhaled gases.

Claim 70 (new)

The indirect calorimeter of claim 64, wherein said computation unit is configured to determine a respiratory quotient of said subject based on said volume of said inhaled gases, said volume of said exhaled gases, and said concentration of oxygen in said exhaled gases.

Claim 71 (new)

The indirect calorimeter of claim 64, further comprising:

a flow tube configured to pass said inhaled gases and said exhaled gases as said subject breathes, said first sensor and said second sensor being coupled to said flow tube.

Claim 72 (new)

An indirect calorimeter, comprising:

means for determining a volume of inhaled gases of a subject and a volume of exhaled gases of said subject;

means for determining a concentration of oxygen in said exhaled gases; and

means for determining an amount of carbon dioxide produced by said subject based on said volume of said inhaled gases, said volume of said exhaled gases, and said concentration of oxygen in said exhaled gases.

Claim 73 (new)

The indirect calorimeter of claim 72, further comprising:

means for determining an amount of oxygen consumed by said subject based on said volume of said inhaled gases, said volume of said exhaled gases, and said concentration of oxygen in said exhaled gases.

Claim 74 (new)

The indirect calorimeter of claim 72, further comprising:

means for determining a respiratory quotient of said subject based on said volume of said inhaled gases, said volume of said exhaled gases, and said concentration of oxygen in said exhaled gases.

Claim 75 (new)

A method for respiratory gas analysis, comprising:

determining a volume of respiratory gases of a subject;

determining a concentration of oxygen in said respiratory gases; and

determining an amount of carbon dioxide produced by said subject based on said volume of said respiratory gases and said concentration of oxygen in said respiratory gases.

Claim 76 (new)

The method of claim 75, wherein determining said volume of said respiratory gases includes determining a volume of inhaled gases of said subject and a volume of exhaled gases of said subject.

Claim 77 (new)

The method of claim 76, wherein determining said concentration of oxygen in said respiratory gases includes determining a concentration of oxygen in said exhaled gases.

Claim 78 (new)

The method of claim 77, wherein determining said amount of carbon dioxide produced includes determining said amount of carbon dioxide produced based on said volume of said inhaled gases, said volume of said exhaled gases, and said concentration of oxygen in said exhaled gases.

Claim 79 (new)

The method of claim 75, further comprising:

determining an amount of oxygen consumed by said subject based on said volume of said respiratory gases and said concentration of oxygen in said respiratory gases.